

0185659SeqList.txt  
SEQUENCE LISTING

<110> DSM IP ASSETS B.V.

<120> Transcriptional activator gene for genes involved in cobalamin biosynthesis

<130> NDR5233

<140> PCT/EP03/10572

<141> 2003-09-23

<150> EP 02021603.2

<151> 2002-09-27

<160> 8

<170> PatentIn version 3.2

<210> 1

<211> 1439

<212> DNA

<213> Pseudomonas denitrificans

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<221> CDS

<222> (303)..(1304)

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gtaaaaactg tcgctttcct taaaaagcc tgaaagcggg gccgagccgc ctttcaccgc	180
gcgatgtcgc aatgcgaaat ctctttgcgg tcgctgctat ccatgcgaat gtcgcaaaca	240
gacaagccga agagtatctt ccaagcgacg aatataccgc atcgccaagc atgggaagcc	300
tc atg aac aag cca ctg acc aaa aag cgt tct ctc gtc ttc ttc ctg	347
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gtg ccg aac ttt tcc atg ctg ccc ttt tcg gcg gcg atc gaa acg ctc	395
Val Pro Asn Phe Ser Met Leu Pro Phe Ser Ala Ala Ile Glu Thr Leu	
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cgc atc gcc aac cgc atg ctc ggc tac gag gcc tat tcc tgg cgc ctc	443
Arg Ile Ala Asn Arg Met Leu Gly Tyr Glu Ala Tyr Ser Trp Arg Leu	
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Ala Ser Ser Asp Gly Glu Lys Val Leu Ser Ser Ser Gly Ile Ala Leu	
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Glu Val Asn Ser Ser Leu Ala Asp Glu Arg Lys Phe Leu Gly Gly Glu	
65 70 75	
aac cgc ccc tcg atg gtg ctg gtc tgt tcc ggc atc tat gtc gag gac	587
Asn Arg Pro Ser Met Val Leu Val Cys Ser Gly Ile Tyr Val Glu Asp	
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Ile Ala Asn Arg Met Leu Gly Tyr Glu Ala Tyr Ser Trp Arg Leu Ala  
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Ser Ser Asp Gly Glu Lys Val Leu Ser Ser Ser Gly Ile Ala Leu Glu  
50 55 60

Val Asn Ser Ser Leu Ala Asp Glu Arg Lys Phe Leu Gly Gly Glu Asn  
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Arg Pro Ser Met Val Leu Val Cys Ser Gly Ile Tyr Val Glu Asp Phe  
85 90 95

Asn Asn Lys Ser Val Asn Ala Trp Leu Arg Glu Val Tyr Asn Arg Gly  
100 105 110

Val Ala Val Gly Ser Leu Cys Thr Gly Ala His Val Leu Ala Ser Ala  
115 120 125

Gly Leu Leu Thr Gly Lys Arg Cys Ala Ile His Trp Glu Asn Leu Pro  
130 135 140

Gly Phe Ser Glu Ser Phe Pro Gln Val Asp Val Tyr Ala Asp Leu Tyr  
145 150 155 160

Glu Ile Asp Ser Asn Ile Tyr Thr Cys Ala Gly Gly Thr Ala Ser Leu  
165 170 175

Asp Met Met Leu Asn Leu Ile Asp Gln Asp Phe Gly Glu Ser Leu Val  
180 185 190

Asn Arg Val Cys Glu Gln Ala Leu Thr Asp Arg Val Arg Gly Pro His  
195 200 205

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Asp Arg Gln Arg Leu Pro Leu Arg Ala Arg Leu Gly Val Gln Asn Ala  
210 215 220

Lys Val Leu Ser Ile Ile Glu Leu Met Glu Ala Asn Leu Ala Glu Pro  
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Leu Ser Leu Leu Glu Ile Ala Glu Gly Ala Asp Leu Ser Arg Arg Gln  
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Ile Glu Arg Leu Phe Arg Gln Glu Met Gly Arg Ser Pro Ala Arg Tyr  
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Tyr Leu Glu Ile Arg Leu Asp Arg Ala Arg His Leu Leu Ile Gln Ser  
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Ser Met Pro Val Val Glu Val Ala Val Ala Cys Gly Phe Val Ser Ala  
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Ser His Phe Ser Lys Cys Tyr Arg Glu Leu Tyr Asn Arg Ser Pro Gln  
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